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ECE 637
Exam #1

2.5) $$H(e^{j\mu}, e^{j\nu}) = 1 + \lambda\left(1 - H_1(e^{j\mu}, e^{j\nu})H_2(e^{j\mu}, e^{j\nu})\right)$$

$$= \boxed{1 + \lambda\left[1 - \left(\frac{1}{3}\left(1 + 2\cos(\mu)\right)\right)\left(\frac{1}{3}\left(1 + 2\cos(\nu)\right)\right)\right]}$$

2.6) Implementing H using H_1 and H_2 allows for decreased computation time (less multiplies)

Implementing the standard H requires 9 multiplies per input point, whereas implementing H using H_1 and H_2 only requires 6 multiplies per input point